### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

### (19) World Intellectual Property Organization

International Bureau



## 

(43) International Publication Date 4 August 2005 (04.08.2005)

PCT

# (10) International Publication Number WO 2005/071866 A1

(51) International Patent Classification7:

H04B 7/26

(21) International Application Number:

PCT/KR2005/000212

- (22) International Filing Date: 26 January 2005 (26.01.2005)
- (25) Filing Language:

Korean

(26) Publication Language:

English

- (30) Priority Data: 10-2004-0004789 26 January 2004 (26.01.2004) KI
- (71) Applicant (for all designated States except US): SK TELECOM CO., LTD. [KR/KR]; 99, Seorin-dong, Jongro-gu, Seoul 110-110 (KR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): PARK, Seong-Soo [KR/KR]; #203, 837-15, Hwagok 4-dong, Gangseo-gu, Seoul 157-014 (KR). LEE, Sang-Shin [KR/KR]; #302, 55-20, Guui 2-dong, Gwangjin-gu, Seoul 143-202 (KR). LEE, Dong-Hahk [KR/KR]; #809-1101, Jinheung Apt., Imaechon, 111, Imae-dong, Bundang-gu, Seongnam-si, Gyeonggi-do 463-904 (KR).

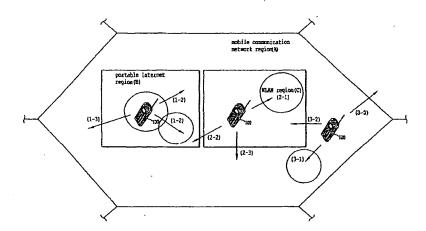
- (74) Agents: KIM, Seong-Nam et al.; 17th Floor, City Air Tower, 159-9 Samsung-dong, Gangnam-gu, Seoul 135-973 (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

with international search report

[Continued on next page]

(54) Title: METHOD OF SWITCHING MULTI-MODE MULTI-BAN MOBILE COMMUNICATION TERMINAL IN MULTI ACCES COMMUNICATION NERWORK



(57) Abstract: The present invention relates to a mode switching method for a multi-mode multiband mobile communication terminal in a multi-access communication network, which is capable of effectively providing handoff to the user mobile communication terminal in heterogeneous communication networks. The method includes the first step of calculating the link quality of a Wireless Local Area Network (WLAN); the second step of comparing the link quality with a first reference value; the third step of measuring a signal from the portable Internet having coverage wider than that of the current communication network if it is determined that the link quality of the WLAN is lower than the first reference value; the fourth step of calculating the link quality of the portable Internet; and the fifth step of switching the mode of the mobile communication terminal to perform handoff to the portable Internet if it is determined that the link quality of the portable Internet is higher than a second reference value.

## WO 2005/071866 A1



 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.